NATURAL RESOURCES
TECHNICAL NOTE

1991 BLACK BEAR HARVEST

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Black bear *(Ursus americanus)* in Nova Scotia are harvested both by hunting and snaring. The 1991 bear hunting season extended throughout the province from September 15 to October 31, and the bear snaring season from October 16 to October 31. It is estimated that a total of 231 bears were harvested; 171 by resident hunters, 7 by non-resident hunters, and 53 by resident fur harvesters. As well, 26 bears were reported to have died from non-hunting causes, while Department staff investigated 132 bear-related problems.

There were 364 resident hunters in 1991 (Table 1), of whom 145 returned their hunting report cards. Sixty-eight bears were reported as having been harvested. The total calculated harvest by resident hunters is 171* (Table 2). Of the 10 non-residents who purchased bear hunting licenses, 7 returned their report cards. Five bears (two male and three female) were reported taken by non-residents—all within Annapolis County. Calculated harvest by non-residents is seven*. This amounts to only 3 per cent of all bears harvested in 1991.

Resident hunter effort was greatest in the western Nova Scotia. Here the greatest portion (77 per cent) of the calculated harvest was achieved. The eastern part of the province accounted for 20 per cent of the harvest, while hunters of Cape Breton took only 3 per cent of the bears.

The majority of hunting effort by non-residents was expended within Annapolis County (21 days), with Lunenburg County and Kings County receiving only two and three days of hunting respectively.

One hundred and two (102) bear snaring licenses were issued. From 58 report card returns, 30 bears were reported taken, and it is estimated that 53 bears were harvested by all fur harvesters (Table 3). (Only licensed resident fur harvesters are allowed to snare bears in Nova Scotia.)

A comparison of license sales, calculated harvest, hunter success, and reported non-hunting related bear mortalities for 1988–91 is shown in Table 1. License sales, harvest, hunter success, and reported non-hunting mortality of bears have all increased in the past two years. Although there may be a number of reasons for this, it is believed that a healthy and growing bear population combined with hunters becoming more proficient in hunting over baits are the main factors. (Hunting over baits in Nova Scotia was legalized in 1988.)

Table 3 shows the distribution of effort and harvest by trappers in snaring bears. Table 4 compares problem bear investigations and non-hunting related bear deaths by county. It is important to note that the frequency of problem bears is not only a reflection of bear numbers, but is also affected by human factors such as agricultural or garbage attractions and possibly by changes in habitat and food availability (e.g., poor berry crop).

Of the 129 bears reported harvested within Nova Scotia in 1991, 67 were male and 36 were female (67.5 per cent and 32.5 per cent respectively). Sex was not recorded for one snared bear and eight bears destroyed as the result of problem situations. The predominance of males in the harvest indicates that our bear population is not currently being over-harvested. Male bears (especially juveniles) are most vulnerable to mortality factors (human and natural), as they are the ones that travel the greater distances, exploring in search of food and a suitable home range.

In future, the Department intends to collect more biological information from successful hunters and fur harvesters as well as from relocated or dispatched problem bears. We also hope to achieve a higher level of reporting regarding "effort" from all hunters and fur harvesters.

**This figure assumes that the success rate of those who did not submit their report cards was similar to that of those who did.*

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Table 1. *Bear Hunting, Snaring Success, and Problem Bear Investigations 1988 — 1991*

	Hunting Licenses		Calculated Hunter Harvest	Hunter Success * (%)	Snaring Licenses (Resident)	Calculated Snaring Harvest	Non-Hunting Related Mortalities	Bear Related Investigations
	Resident	Non-Resident						
1988	232	14	52	21.8	163	82	7	66
1989	146	25	36	21.0	108	57	13	67
1990	245	13	99	35.2	111	57	18	98
1991	364	10	178	47.6*	102	53	26	132

* Resident Hunter Success — 47%
Non-resident Hunter Success — 71%

Table 2. *Resident Hunter Effort and Harvest—1991*

	Days Hunted		**Harvest**						
			Firearm		**Bow**		**Sex Ratio**		
County	Firearm	Bow	Male	Female	Male	Female	Male	Female	Total
Lunenburg	81	23	2	2	2	0	4	2	6
Queens	46	10	3	3	1	0	4	3	7
Shelburne	56	6	3	4	0	1	3	5	8
Yarmouth	79	17	9	0	2	0	11	0	11
Digby	69	0	4	3	0	0	4	3	7
Annapolis	125	1	7	1	0	1	7	2	9
Kings	45	21	2	1	0	1	2	2	4
Western	501 (1258)	78 (196)	30	14	5	3	35 (88)	17 (43)	52 (131)
Cumberland	60	28	4	1	0	1	4	2	6
Colchester	0	10	0	0	0	0	0	0	0
Pictou	0	0	0	0	0	0	0	0	0
Antigonish	62	6	1	1	0	0	1	1	2
Guysborough	3	0	0	0	0	0	0	0	0
Halifax	32	33	1	2	1	0	2	2	4
Hants	71	14	1	1	0	0	1	1	2
Eastern	228 (572)	91 (228)	7	5	1	1	8 (20)	6 (15)	14 (35)
Inverness	35	7	0	0	0	0	0	0	0
Victoria	85	0	2	0	0	0	2	0	2
Cape Breton	0	0	0	0	0	0	0	0	0
Richmond	0	0	0	0	0	0	0	0	0
C.B. Island	120 (301)	7 (18)	2	0	0	0	2 (5)	0	2 (5)
Province	849 (2131)	176 (442)	39 (98)	19 (48)	6 (15)	4 (10)	45 (113)	23 (58)	68 (171)

Note: The unbracketed numbers are data provided from Hunter Report Cards (145 responses). The bracketed figures are calculated to be representative of all persons who purchased Resident Bear Hunting Licenses (364). This assumes that non-respondents made the same approximate hunting effort, had the same distribution . mong counties, and achieved similar success as those submitting report cards.

Table 3. *Reported Snaring Effort and Harvest—1991*

County	Effort		Harvest			
	Snares Set	Snare Nights	Male	Female	Unknown	Total
Lunenburg	28	199	4	2	1	7
Queens	10	61	1	0	0	1
Shelburne	5	24	2	0	0	2
Yarmouth	8	61	0	2	0	2
Digby	4	38	0	1	0	1
Annapolis	25	249	4	0	0	4
Kings	9	64	1	0	0	1
Western	89 (157)	696 (1225)	12	5	1	18 (32)
Cumberland	18	188	0	2	0	2
Colchester	5	16	1	0	0	1
Pictou	14	98	2	2	0	4
Antigonish	4	18	1	0	0	1
Guysborough	0	0	0	0	0	0
Halifax	7	30	2	1	0	3
Hants	0	0	0	0	0	0
Eastern	48 (84)	350 (616)	6	5	0	11 (19)
Inverness	1	1	1	0	0	1
Victoria	4	45	0	0	0	0
Cape Breton	0	0	0	0	0	0
Richmond	0	0	0	0	0	0
C.B. Island	5 (9)	46 (81)	1	0	0	1 (2)
Province	142 (250)	1092 (1922)	19	10	1	30 (53)

Note: 102 snaring licenses were issued. The above data is from hunting report cards returned by 58 fur harvesters. Numbers in brackets are calculated to be representative of all 102 license holders.

Table 4. *Problem Bear Investigations and Non-hunting Related Mortality—1991*

County	Problem Bear Investigations	Bear Deaths			
		Male	Female	Unknown	Total
Lunenburg	5	0	0	0	0
Queens	13	0	1	2	3
Shelburne	15	1	0	1	2
Yarmouth	1	0	0	0	0
Digby	5	4	0	0	4
Annapolis	5	0	1	0	1
Kings	5	0	0	0	0
Western	49 (37%)	5	2	3	10 (38%)
Cumberland	5	1	0	1	2
Colchester	3	2	1	0	3
Pictou	14	2	0	0	2
Antigonish	6	1	0	1	2
Guysborough	3	1	0	1	2
Halifax	21	2	0	0	2
Hants	4	1	0	0	1
Eastern	56 (43%)	10	1	3	14 (54%)
Inverness	7	0	0	0	0
Victoria	19	0	0	2	2
Cape Breton	1	0	0	0	0
Richmond	0	0	0	0	0
Cape Breton	27 (20%)	0	0	2	2 (8%)
Province	132	15	3	8	26